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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,254	11/15/2001	John C. Reed	P-LJ 5037	8329

23601 7590 10/14/2004

CAMPBELL & FLORES LLP
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SAN DIEGO, CA 92122

EXAMINER	
NICKOL, GARY B	
ART UNIT	**PAPER NUMBER**
1642	

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/001,254	REED ET AL.	
	Examiner	Art Unit	
	Gary B. Nickol Ph.D.	1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-16,18,23 and 53-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-16,18,23 and 53-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Sequence alignments*.

Re: Reed *et al.*

Date of Priority: November 17, 2000

Response to Amendment

The Amendment filed 07-28-04 in response to the Office Action of 01-28-04 is acknowledged and has been entered.

Claims 1-13, 17, 19-22, and 24-52 were cancelled.

Claims 53-62 were added.

Claims 14-16, 18, 23, and 53-62 are currently under consideration.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Rejections Maintained:

Claims 14-18, and 23 remain rejected and new claims 53-62 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention for the reasons of record in the Action mailed 01/28/04, pages 6-8.

Applicants argue (Response filed 07-28-04, page 8), that the claims, as amended, are now limited to those nucleic acids "consisting of" DNA encoding the amino acid sequence of SEQ ID NO:6. Applicants submit that the specification would have been more than adequate to convey to the person skilled in the art that the inventors had possession of the claimed invention. This argument has been considered but is not found persuasive. Amending the claims to consisting of does not address the written description guidelines as set forth in the previous rejection. As set forth previously, only an isolated nucleic acid molecule encoding a polypeptide selected from the group consisting of SEQ ID NOs:6 and or the complete complements thereof, but not the full breadth of the claim meets the written description provision of 35 U.S.C. §112, first paragraph. Currently, the claims encompass any and all complementary nucleic acid sequences that share the ability to encode SEQ ID NO:6 wherein such nucleic acids would hybridize under moderately stringent conditions. However, as set forth previously, the specification fails to sufficiently describe the genus of nucleic acids that hybridize under moderately stringent conditions to nucleic acids encoding SEQ ID NO:6. Further, the hybridization conditions as disclosed by the specification are not limiting and thus the claims read on the full range of conditions from low to highly stringent wherein the claimed hybridized polynucleotides read on polynucleotides that range from those that lack significant complementarity to those that are completely complementarity to the claimed complementary polynucleotide. Thus, the claims remain inclusive to a **genus** of polynucleotides. Thus, applicant's arguments have not been found persuasive and the rejection is maintained.

Claims 14-16, and 23 remain rejected under 35 U.S.C. 102(a) as being anticipated by Watanabe *et al.* (GenEmbl/PRI Database, Accession No. AK000528, February 22, 2000). As set forth previously, Watanabe *et al.* teach an isolated nucleic acid molecule encoding a polypeptide that is 100% identical to SEQ ID NO:6 (see attached sequence listing).

Applicants argue (Response, 07-28-04, page 9) that nothing in the Watanabe reference teaches or suggests the existence of a DD domain polypeptide. Nor does the Watanabe reference teach or suggest nucleic acids consisting of a DNA encoding a DD domain polypeptide. Thus, Applicants submit that the claims as amended are not anticipated by Watanabe. This argument has been considered but is not found persuasive as the reference clearly anticipates an isolated nucleic acid sequence that consists of a sequence selected from DNA encoding the amino acid sequence set forth in SEQ ID NO:6 and or DNA that hybridizes to the DNA of the latter under moderately stringent conditions. The amended language "consisting of a sequence" fails to adequately distinguish the prior art sequence from the claimed nucleic acid(s) because the prior art sequence still encodes SEQ ID NO:6, and the *claimed* nucleic acid encompasses **any** sequence (consisting or comprising or having) nucleic acids that encode SEQ ID NO:6. In other words, there is no attempt to define the nucleic acid by SEQ ID NO, such as in newly amended Claim 18. Thus, applicant's arguments have not been found persuasive and the rejection is maintained.

Claims 14-16, 23 remain rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,440,663 (Scanlan *et al.*, October 1998). Applicant's arguments are substantially similar to those set forth above and are not found persuasive for the reasons of record.

NEW REJECTIONS:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 53, 55-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe *et al.* (GenEmbl/PRI Database, Accession No. AK000528, February 22, 2000) or US Patent No. 6,440,663 (Scanlan *et al.*, October 1998) in view of the teachings of Matthews *et al.* (Anal.Biochem., Vol. 169, Feb. 1988, pp.1-25).

Both Watanabe *et al.* and Scanlan *et al.* teach an isolated nucleic acid molecule consisting of a sequence selected from the group consisting of DNA encoding the amino acid sequence set forth in SEQ ID NO:6; and DNA that hybridizes to the latter under moderately stringent conditions.

Neither reference specifically teaches the inclusion of labels linked to the DNA such as fluorescent labeling, radioactive elements, or enzymatic labels.

Matthews *et al.* teach a review of analytical strategies for the use of DNA probes that includes labeling with radioactive, enzymatic, and or fluorescent agents.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to link the nucleic acids of the prior art with radioactive, fluorescent, and or

enzymatic agents. One would have been motivated to do so because Matthews *et al.* teach that labeling nucleic acids are conventional in the art for the purposes of quantitation, hybridization, and localization (pages 1, and 5-10). Such labeling includes fluorescent labeling, radioactive elements, and enzymes such as horseradish peroxidase and glucose oxidase.

Claims 59-62 are rejected under 35 USC 112, first paragraph, as the specification does not contain a written description of the claimed invention. The limitation of a nucleic acid that consists of a "chimeric non-naturally occurring DNA consisting of first and second DNA fragments" has no clear support in the specification and the claims as originally filed, including pages 28-32 as suggested by Applicants in their response filed 07-28-04, page 6. Applicant is required to cancel the new matter in the response to this Office Action. Alternatively, applicant is invited to provide sufficient written support for the "limitation" indicated above. See MPEP 714.02 and 2163.06.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection/objection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

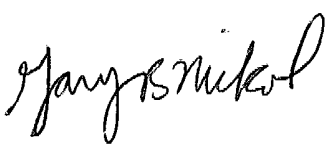
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary B. Nickol Ph.D. whose telephone number is 571-272-0835. The examiner can normally be reached on M-Th, 8:30-5:30; alternate Fri., 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Siew can be reached on 571-272-0787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gary B. Nickol Ph.D.
Primary Examiner
Art Unit 1642

GBN



GARY NICKOL
PRIMARY EXAMINER

GenCore version 5.1.6

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(without alignments)
1691.512 Million cell updates/sec

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Listing first 45 summaries

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-USER=US10001254_@CGN_1_1_95_@runat_16012004_152425_19740 -NCPU=6 -ICPU=3
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	96.5	18.7	2288	3	US-09-135-232-1	Sequence 1, Appli
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4	79	15.3	1806	2	US-08-980-060-1	Sequence 1, Appli
5	79	15.3	1806	3	US-09-307-185-1	Sequence 1, Appli
6	79	15.3	3459	2	US-08-980-060-3	Sequence 3, Appli
7	79	15.3	3459	3	US-09-307-185-3	Sequence 3, Appli
c 8	78.5	15.2	479	2	US-08-980-060-14	Sequence 14, Appl
c 9	78.5	15.2	479	3	US-09-307-185-14	Sequence 14, Appl
10	72	13.9	536165	4	US-09-214-808-1	Sequence 1, Appli
11	69.5	13.4	1416	3	US-09-234-393-26	Sequence 26, Appl
12	69.5	13.4	1416	4	US-09-360-545-19	Sequence 19, Appl
13	69.5	13.4	1416	4	US-09-865-171-26	Sequence 26, Appl
14	69.5	13.4	1785	3	US-09-234-393-49	Sequence 49, Appl
15	69.5	13.4	1785	3	US-09-234-393-51	Sequence 51, Appl
16	69.5	13.4	1785	3	US-09-234-393-53	Sequence 53, Appl
17	69.5	13.4	1785	4	US-09-865-171-49	Sequence 49, Appl
18	69.5	13.4	1785	4	US-09-865-171-51	Sequence 51, Appl
19	69.5	13.4	1785	4	US-09-865-171-53	Sequence 53, Appl
20	69.5	13.4	1785	4	US-09-398-395A-49	Sequence 49, Appl
21	69.5	13.4	1785	4	US-09-887-586A-49	Sequence 49, Appl
22	69.5	13.4	1785	4	US-09-895-752-49	Sequence 49, Appl
23	69.5	13.4	1785	4	US-09-903-012B-49	Sequence 49, Appl
24	69.5	13.4	1977	3	US-09-234-393-23	Sequence 23, Appl
25	69.5	13.4	1977	4	US-09-865-171-23	Sequence 23, Appl
26	66.5	12.9	265	4	US-09-313-294A-3660	Sequence 3660, Ap
27	66	12.8	987	4	US-09-252-991A-11251	Sequence 11251, A
28	66	12.8	1140	4	US-09-252-991A-11181	Sequence 11181, A
c 29	66	12.8	3141	4	US-09-252-991A-10937	Sequence 10937, A
c 30	65	12.6	1623	4	US-09-513-783A-33	Sequence 33, Appl
31	64.5	12.5	1521	4	US-09-134-001C-470	Sequence 470, App
32	63.5	12.3	1473	3	US-08-907-740-6	Sequence 6, Appli
c 33	63.5	12.3	3059	4	US-09-620-312D-213	Sequence 213, App
c 34	63.5	12.3	3068	4	US-09-620-312D-214	Sequence 214, App
c 35	63.5	12.3	3071	4	US-09-620-312D-215	Sequence 215, App
c 36	63.5	12.3	3134	4	US-09-620-312D-212	Sequence 212, App
c 37	63	12.2	2472	3	US-08-743-168B-35	Sequence 35, Appl
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c 40	63	12.2	7881	2	US-09-060-836-1	Sequence 1, Appli
c 41	63	12.2	7881	3	US-09-184-445-1	Sequence 1, Appli
42	62.5	12.1	1637	4	US-09-724-623-62	Sequence 62, Appl
43	62.5	12.1	4935	2	US-08-631-097-3	Sequence 3, Appli
44	62.5	12.1	5886	3	US-08-810-712-9	Sequence 9, Appli
45	62.5	12.1	6027	2	US-08-968-542C-1	Sequence 1, Appli

ALIGNMENTS

RESULT 1
US-09-166-350-10
; Sequence 10, Application US/09166350A
; Patent No. 6440663
; GENERAL INFORMATION:
; APPLICANT: Scanlan, Matthew
; APPLICANT: Chen, Yao
; APPLICANT: Stockert, Elisabeth
; APPLICANT: Old, Lloyd
; APPLICANT: Jager, Elke
; APPLICANT: Knuth, Alex
; TITLE OF INVENTION: Renal Cancer Associated Antigens and
; TITLE OF INVENTION: Uses Therefor
; FILE REFERENCE: L0461/7051
; CURRENT APPLICATION NUMBER: US/09/166,350A
; CURRENT FILING DATE: 1998-10-05
; EARLIER APPLICATION NUMBER: US 09/166,350
; EARLIER FILING DATE: 1998-10-05
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 10
; LENGTH: 833
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-166-350-10

DNA encoding SEQ ID #6

Alignment Scores:

Pred. No.:	1.17e-67	Length:	833
Score:	517.00	Matches:	98
Percent Similarity:	100.00%	Conservative:	0
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US-10-001-254-6 (1-98) x US-09-166-350-10 (1-833)

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Qy          1 ThrTyrValArgCysLeuAsnValGlyLeuIleArgLysLeuSerAspPheIleAspPro 20
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Db        314 ATCCAAAATGAATTTTTTGCTCCTGCGAGTCTTTTGCTCCCAGATGCTGTTCCC 367

RESULT 2
US-09-135-232-1
; Sequence 1, Application US/09135232
; Patent No. 6262228
; GENERAL INFORMATION:
;  APPLICANT: Cao, Zhaodan
;  TITLE OF INVENTION: IRAK3 Polypeptides, Polynucleotides and Methods
;  FILE REFERENCE: T98-019
;  CURRENT APPLICATION NUMBER: US/09/135,232
;  CURRENT FILING DATE: 1998-08-17
;  NUMBER OF SEQ ID NOS: 2
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 2288
;   TYPE: DNA
;   ORGANISM: human
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (64)..(1851)
US-09-135-232-1

Alignment Scores:
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Best Local Similarity:    31.51%          Mismatches:      31
Query Match:              18.67%          Indels:          7
DB:                       3               Gaps:            1

US-10-001-254-6 (1-98) x US-09-135-232-1 (1-2288)

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RESULT 3
US-09-863-549-1
; Sequence 1, Application US/09863549
; Patent No. 6576444
; GENERAL INFORMATION:
;  APPLICANT: Cao, Zhaodan
;  TITLE OF INVENTION: IRAK3 Polypeptides, Polynucleotides and Methods
;  FILE REFERENCE: T98-019
;  CURRENT APPLICATION NUMBER: US/09/863,549
;  CURRENT FILING DATE:  2001-05-22
;  PRIOR APPLICATION NUMBER: 09/135,232
;  PRIOR FILING DATE: 1998-08-17
;  NUMBER OF SEQ ID NOS: 2
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 2288
;   TYPE: DNA
;   ORGANISM: human
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (64)..(1851)
US-09-863-549-1

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Pred. No.:                0.000283        Length:          2288
Score:                    96.50           Matches:         23
Percent Similarity:       47.95%          Conservative:    12
Best Local Similarity:    31.51%          Mismatches:      31
Query Match:              18.67%          Indels:          7
DB:                       4               Gaps:            1

US-10-001-254-6 (1-98) x US-09-863-549-1 (1-2288)

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Qy         28 AlaValAlaIleLysLysProSerGlyAspAspArgTyrAsnGlnPheHisIleArgArg 47
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Db        196 GCAGAGAGACTTTCAAGC--------------------AGCTGGCTGGATGTTCGTCAT 234

Qy         48 PheGluAlaLeuLeuGlnThrGlyLysSerProThrSerGluLeuLeuPheAspTrpGly 67
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Db        235 ATTGAAAAGTATGTAGACCAAGGTAAAAGTGGAACAAGAGAATTACTTTGGTCCTGGGCA 294

Qy         68 ThrThrAsnCysThrValGlyAspLeuValAspLeuLeu 80
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Db        295 CAGAAAAACAAGACCATCGGTGACCTTTTACAGGTCCTC 333

RESULT 4
US-08-980-060-1
; Sequence 1, Application US/08980060
; Patent No. 5965421
;  GENERAL INFORMATION:
;    APPLICANT:  NI, JIAN
;    APPLICANT:  FENG, PING
;    APPLICANT:  MUZIO, MARTA
;    APPLICANT:  DIXIT, VISHVA M.
;    TITLE OF INVENTION:  HUMAN IRAK-2
;    NUMBER OF SEQUENCES:  14
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
;      STREET:  1100 NEW YORK AVENUE, N.W., SUITE 600
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20005-3934
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/980,060
;      FILING DATE:  Herewith
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
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     CDS             50. .1432
                     /note="unnamed protein product"
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                     /db_xref="GI:21656188"
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                     SDTRFHSFSFYELKNVTNNFDERPISVGGNKMGEGGFGVVYKGYVNNTTVAVKKLAAM
                     VDITTEELKQQFDQEIKVMAKCQHENLVELLGFSSDGDDLCLVYVYMPNGSLLDRLSC
                     LDGTPPLSWHMRCKIAQGAANGINFLHENHHIHRDIKSANILLDEAFTAKISDFGLAR
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BASE COUNT      912 a    547 c    586 g    772 t
ORIGIN

Alignment Scores:
Pred. No.:                1.71e-60        Length:          2817
Score:                    517.00          Matches:         98
Percent Similarity:       100.00%         Conservative:    0
Best Local Similarity:    100.00%         Mismatches:      0
Query Match:              100.00%         Indels:          0
DB:                       6               Gaps:            0

US-10-001-254-6 (1-98) x AX431318 (1-2817)

Qy          1 ThrTyrValArgCysLeuAsnValGlyLeuIleArgLysLeuSerAspPheIleAspPro 20
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Db         74 ACATATGTGCGCTGCCTCAATGTTGGACTAATTAGGAAGCTGTCAGATTTTATTGATCCT 133

Qy         21 GlnGluGlyTrpLysLysLeuAlaValAlaIleLysLysProSerGlyAspAspArgTyr 40
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Db        134 CAAGAAGGATGGAAGAAGTTAGCTGTAGCTATTAAAAAACCATCTGGTGATGATAGATAC 193

Qy         41 AsnGlnPheHisIleArgArgPheGluAlaLeuLeuGlnThrGlyLysSerProThrSer 60
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Db        194 AATCAGTTTCACATAAGGAGATTTGAAGCATTACTTCAAACTGGAAAAAGTCCCACTTCT 253

Qy         61 GluLeuLeuPheAspTrpGlyThrThrAsnCysThrValGlyAspLeuValAspLeuLeu 80
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Db        254 GAATTACTGTTTGACTGGGGCACCACAAATTGCACAGTTGGTGATCTTGTGGATCTTTTG 313

Qy         81 IleGlnAsnGluPhePheAlaProAlaSerLeuLeuLeuProAspAlaValPro 98
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Db        314 ATCCAAAATGAATTTTTTGCTCCTGCGAGTCTTTTGCTCCCAGATGCTGTTCCC 367

RESULT 6
AF155118
LOCUS       AF155118                2817 bp    mRNA    linear   PRI 05-JAN-2000
DEFINITION  Homo sapiens putative protein kinase NY-REN-64 antigen mRNA,
            complete cds.
ACCESSION   AF155118
VERSION     AF155118.1  GI:5360130
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 2817)
  AUTHORS   Scanlan,M.J., Gordan,J.D., Williamson,B., Stockert,E., Bander,N.H.,
            Jongeneel,V., Gure,A.O., Jager,D., Jager,E., Knuth,A., Chen,Y.-T.
            and Old,L.J.
  TITLE     Antigens recognized by autologous antibody in patients with
            renal-cell carcinoma
  JOURNAL   Int. J. Cancer 83 (4), 456-464 (1999)
  MEDLINE   99438124
   PUBMED   10508479
REFERENCE   2  (bases 1 to 2817)
  AUTHORS   Scanlan,M.J., Gordan,J.D., Williamson,B., Stockert,E., Bander,N.H.,
            Jongeneel,V., Gure,A.O., Jager,D., Jager,E., Knuth,A., Chen,Y.-T.
            and Old,L.J.
  TITLE     Direct Submission
  JOURNAL   Submitted (28-MAY-1999) Ludwig Institute, Sloan-Kettering
            Institute, 1275 York Ave, New York, NY 10021, USA
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                     /cell_line="1973/10-4"
                     /cell_type="renal cell carcinoma"
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                     /db_xref="GI:5360131"
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                     SDTRFHSFSFYELKNVTNNFDERPISVGGNKMGEGGFGVVYKGYVNNTTVAVKKLAAM
                     VDITTEELKQQFDQEIKVMAKCQHENLVELLGFSSDGDDLCLVYVYMPNGSLLDRLSC
                     LDGTPPLSWHMRCKIAQGAANGINFLHENHHIHRDIKSANILLDEAFTAKISDFGLAR
                     ASEKFAQTVMTSRIVGTTAYMAPEALRGEITPKSDIYSFGVVLLEIITGLPAVDEHRE
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                     HQLLQEMTAS"
BASE COUNT      912 a    547 c    586 g    772 t
ORIGIN

Alignment Scores:
Pred. No.:                1.71e-60        Length:          2817
Score:                    517.00          Matches:         98
Percent Similarity:       100.00%         Conservative:    0
Best Local Similarity:    100.00%         Mismatches:      0
Query Match:              100.00%         Indels:          0
DB:                       9               Gaps:            0

US-10-001-254-6 (1-98) x AF155118 (1-2817)

Qy          1 ThrTyrValArgCysLeuAsnValGlyLeuIleArgLysLeuSerAspPheIleAspPro 20
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Db         74 ACATATGTGCGCTGCCTCAATGTTGGACTAATTAGGAAGCTGTCAGATTTTATTGATCCT 133

Qy         21 GlnGluGlyTrpLysLysLeuAlaValAlaIleLysLysProSerGlyAspAspArgTyr 40
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        134 CAAGAAGGATGGAAGAAGTTAGCTGTAGCTATTAAAAAACCATCTGGTGATGATAGATAC 193

Qy         41 AsnGlnPheHisIleArgArgPheGluAlaLeuLeuGlnThrGlyLysSerProThrSer 60
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Db        194 AATCAGTTTCACATAAGGAGATTTGAAGCATTACTTCAAACTGGAAAAAGTCCCACTTCT 253

Qy         61 GluLeuLeuPheAspTrpGlyThrThrAsnCysThrValGlyAspLeuValAspLeuLeu 80
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Db        254 GAATTACTGTTTGACTGGGGCACCACAAATTGCACAGTTGGTGATCTTGTGGATCTTTTG 313

Qy         81 IleGlnAsnGluPhePheAlaProAlaSerLeuLeuLeuProAspAlaValPro 98
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        314 ATCCAAAATGAATTTTTTGCTCCTGCGAGTCTTTTGCTCCCAGATGCTGTTCCC 367

RESULT 7
AK000528
LOCUS       AK000528                2820 bp    mRNA    linear   PRI 22-FEB-2000
DEFINITION  Homo sapiens cDNA FLJ20521 fis, clone KAT10395.
ACCESSION   AK000528
VERSION     AK000528.1  GI:7020683
KEYWORDS    oligo capping; fis (full insert sequence).
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (sites)
  AUTHORS   Watanabe,K., Kumagai,A., Itakura,S., Yamazaki,M., Tashiro,H.,
            Ota,T., Suzuki,Y., Obayashi,M., Nishi,T., Shibahara,T., Tanaka,T.,
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DNA encoding SEQ ID #6

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            Nakamura,Y., Isogai,T. and Sugano,S.
  TITLE     NEDO human cDNA sequencing project
  JOURNAL   Unpublished
REFERENCE   2  (bases 1 to 2820)
  AUTHORS   Sugano,S., Suzuki,Y., Ota,T., Obayashi,M., Nishi,T., Isogai,T.,
            Shibahara,T., Tanaka,T. and Nakamura,Y.
  TITLE     Direct Submission
  JOURNAL   Submitted (15-FEB-2000) Sumio Sugano, Institute of Medical Science,
            University of Tokyo, Deptment of Virology; Shirokane-dai, 4-6-1,
            Minato-ku, Tokyo 108-8639, Japan (E-mail:cdna1@ims.u-tokyo.ac.jp,
            Tel:81-3-5449-5286, Fax:81-3-5449-5416)
COMMENT     NEDO human cDNA sequencing project supported by Ministry of
            International Trade and Industry of Japan; cDNA full insert
            sequencing: Research Association for Biotechnology; cDNA library
            construction, 5'- & 3'-end one pass sequencing: Departent of
            Virology and Human Genome Center, Institute of Medical Science,
            University of Tokyo (partly supported by Science and Technology
            Agency).
FEATURES             Location/Qualifiers
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                     /clone="KAT10395"
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                     /cell_type="signet-ring cell carcinoma"
                     /clone_lib="KAT"
                     /note="cloning vector pME18SFL3"
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                     SDTRFHSFSPYELKNVTNNFDERPISVGGNKMGEGGFGVVYKGYVNNTTVAVKKLAAM
                     VDITTEELKQQFDQEIKVMAKCQHENLVELLGFSSDGDDLCLVYVYMPNGSLLDRLSC
                     LDGTPPLSWHMRCKIAQGAANGINFLHENHHIHRDIKSANILLDEAFTAKISDFGLAR
                     ASEKFAQTVMTSRIVGTTAYMAPEALRGEITPKSDIYSFGVVLLEIITGLPAVDEHRE
                     PQLLLDIKEEIEDEEKTIEDYIDKKMNDADSTSVEAMYSVASQCLHEKKNKRPDIKKV
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BASE COUNT      940 a    534 c    579 g    767 t
ORIGIN

Alignment Scores:
Pred. No.:                1.71e-60        Length:          2820
Score:                    517.00          Matches:         98
Percent Similarity:       100.00%         Conservative:    0
Best Local Similarity:    100.00%         Mismatches:      0
Query Match:              100.00%         Indels:          0
DB:                       9               Gaps:            0

US-10-001-254-6 (1-98) x AK000528 (1-2820)

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Db         54 ACATATGTGCGCTGCCTCAATGTTGGACTAATTAGGAAGCTGTCAGATTTTATTGATCCT 113

Qy         21 GlnGluGlyTrpLysLysLeuAlaValAlaIleLysLysProSerGlyAspAspArgTyr 40
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Db        114 CAAGAAGGATGGAAGAAGTTAGCTGTAGCTATTAAAAAACCATCTGGTGATGATAGATAC 173

Qy         41 AsnGlnPheHisIleArgArgPheGluAlaLeuLeuGlnThrGlyLysSerProThrSer 60
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Db        174 AATCAGTTTCACATAAGGAGATTTGAAGCATTACTTCAAACTGGAAAAAGTCCCACTTCT 233

Qy         61 GluLeuLeuPheAspTrpGlyThrThrAsnCysThrValGlyAspLeuValAspLeuLeu 80
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        234 GAATTACTGTTTGACTGGGGCACCACAAATTGCACAGTTGGTGATCTTGTGGATCTTTTG 293

Qy         81 IleGlnAsnGluPhePheAlaProAlaSerLeuLeuLeuProAspAlaValPro 98
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Db        294 ATCCAAAATGAATTTTTTGCTCCTGCGAGTCTTTTGCTCCCAGATGCTGTTCCC 347

RESULT 8
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LOCUS       AX196260                1383 bp    DNA     linear   PAT 28-AUG-2001
DEFINITION  Sequence 2 from Patent WO0151641.
ACCESSION   AX196260
VERSION     AX196260.1  GI:15386462
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Wesche,H. and Li,S.
  TITLE     Irak-4: compositions and methods of use
  JOURNAL   Patent: WO 0151641-A 2 19-JUL-2001;
            Tularik Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .1383
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                     cDNA"
     CDS             1. .1383
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ORIGIN

Alignment Scores:
Pred. No.:                2.56e-60        Length:          1383
Score:                    513.00          Matches:         97
Percent Similarity:       98.98%          Conservative:    0
Best Local Similarity:    98.98%          Mismatches:      1
Query Match:              99.23%          Indels:          0
DB:                       6               Gaps:            0

US-10-001-254-6 (1-98) x AX196260 (1-1383)

Qy          1 ThrTyrValArgCysLeuAsnValGlyLeuIleArgLysLeuSerAspPheIleAspPro 20
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Db         25 ACATATGTGCGCTGCCTCAATGTTGGACTAATTAGGAAGCTGTCAGATTTTATTGATCCT 84

Qy         21 GlnGluGlyTrpLysLysLeuAlaValAlaIleLysLysProSerGlyAspAspArgTyr 40
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Db         85 CAAGAAGGATGGAAGAAGTTAGCTGTAGCTATTAAAAAACCATCTGGTGATGATAGATAC 144

Qy         41 AsnGlnPheHisIleArgArgPheGluAlaLeuLeuGlnThrGlyLysSerProThrSer 60
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Db        145 AATCAGTTTCACATAAGGAGATTTGAAGCATTACTTCAAACTGGAAAAAGTCCCACTTCT 204

Qy         61 GluLeuLeuPheAspTrpGlyThrThrAsnCysThrValGlyAspLeuValAspLeuLeu 80
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Db        205 GAATTACTGTTTGACTGGGGCACCACAAATTGCACAGCTGGTGATCTTGTGGATCTTTTG 264

Qy         81 IleGlnAsnGluPhePheAlaProAlaSerLeuLeuLeuProAspAlaValPro 98
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Db        265 ATCCAAAATGAATTTTTTGCTCCTGCGAGTCTTTTGCTCCCAGATGCTGTTCCC 318

RESULT 9
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